

# **MX8.8 SIPS Integration test of L2 CMIP: Cloud Mask**

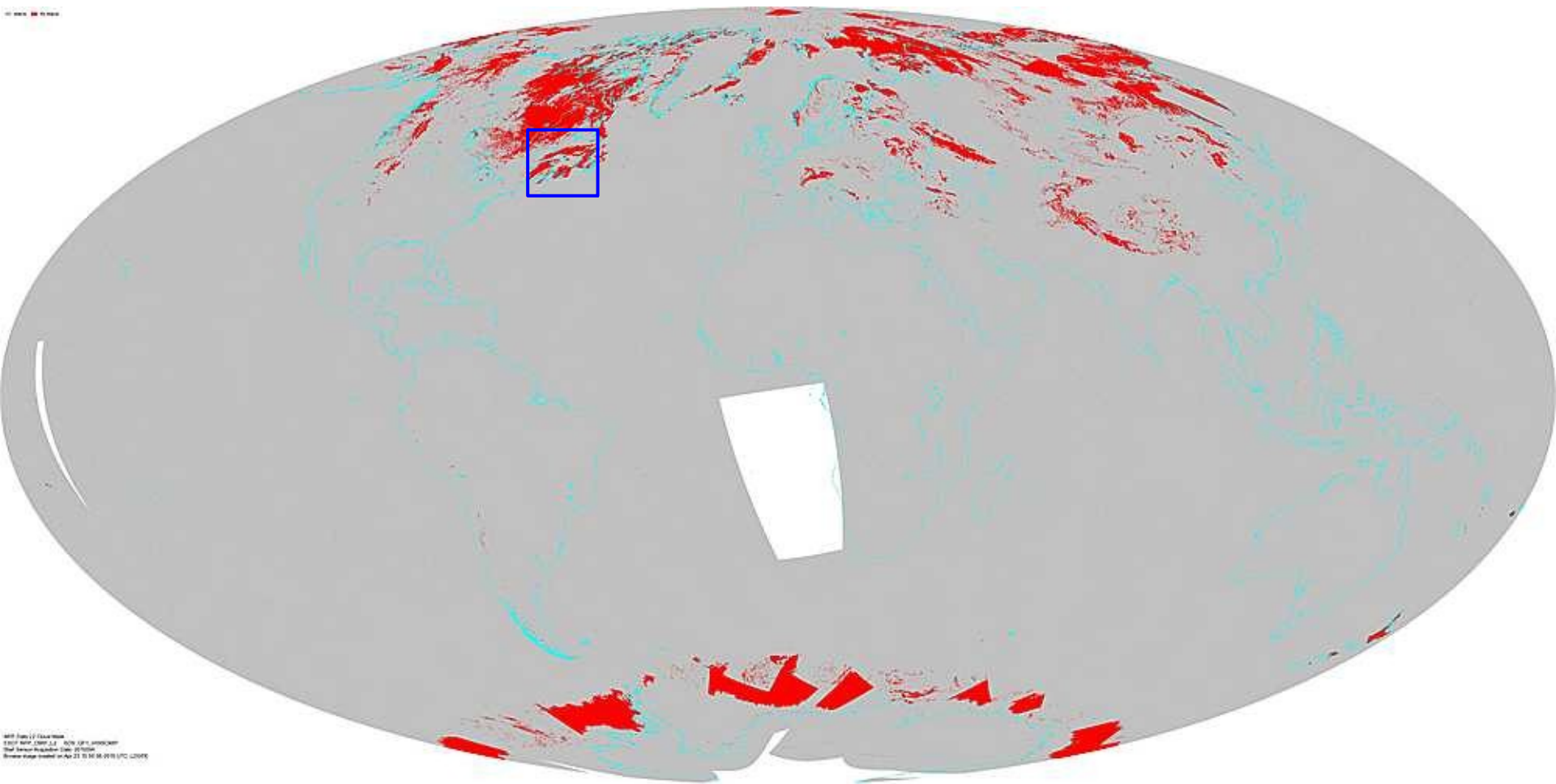
**Comparison : AS 3000 (IDPS), 3001(LSIPS), AS1146(Mx8.8 test)**

*Date Reviewed: 04.24.15*

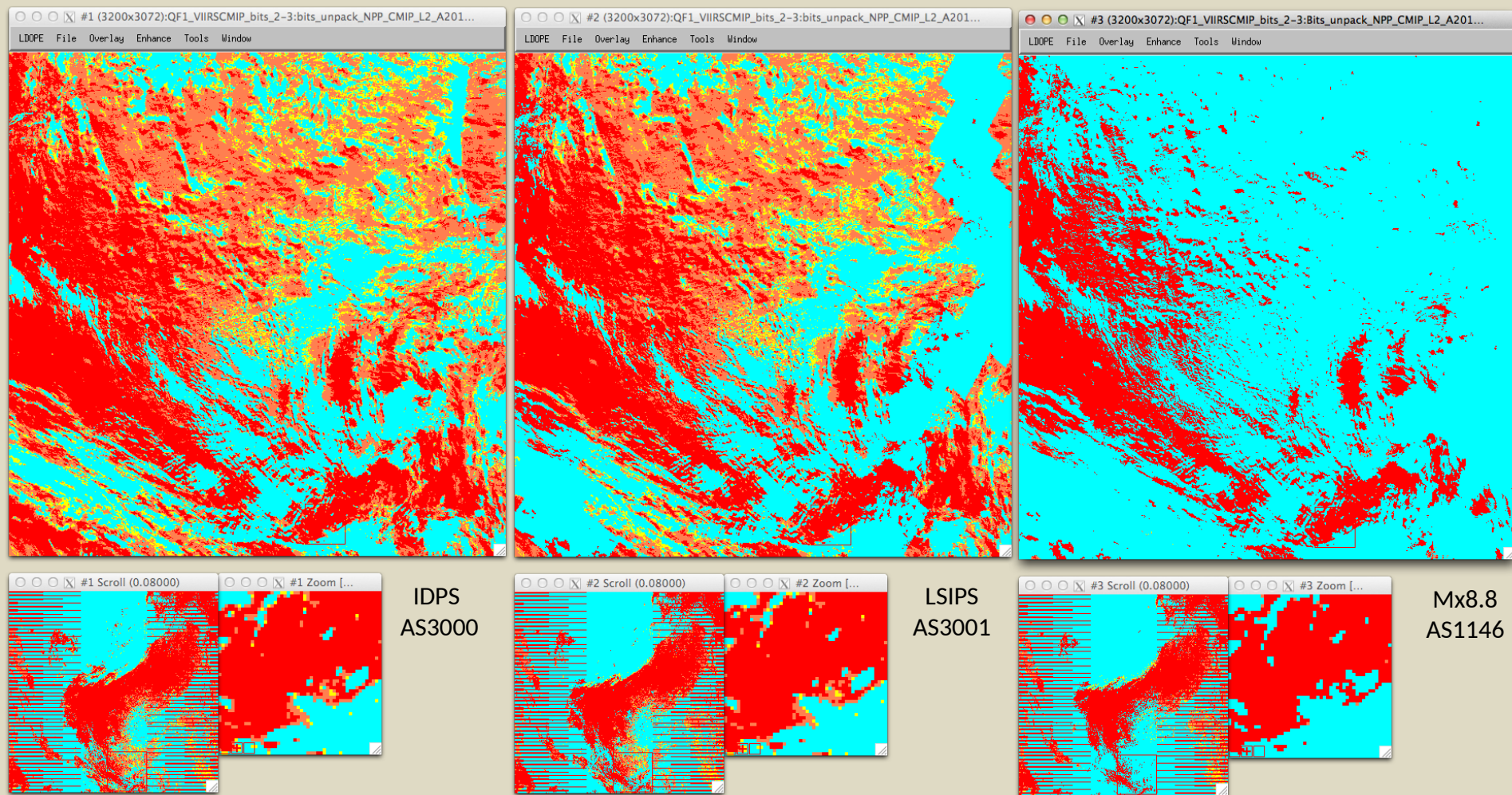
*LDOPE*

- NPP\_CMIP\_L2, day 2015094 (04/04/15), QF1, R-DIFF (IDPS AS 3000 vs SIPS AS 3001)
- Nominal differences were observed in the forward processing APU Cloud Mask.
- Review of QF1 Bits focused on granule 1710 (Eeastern North America, Canada, Blue Box).

## Differences in Cloud Mask APU: 2015.094 and forward

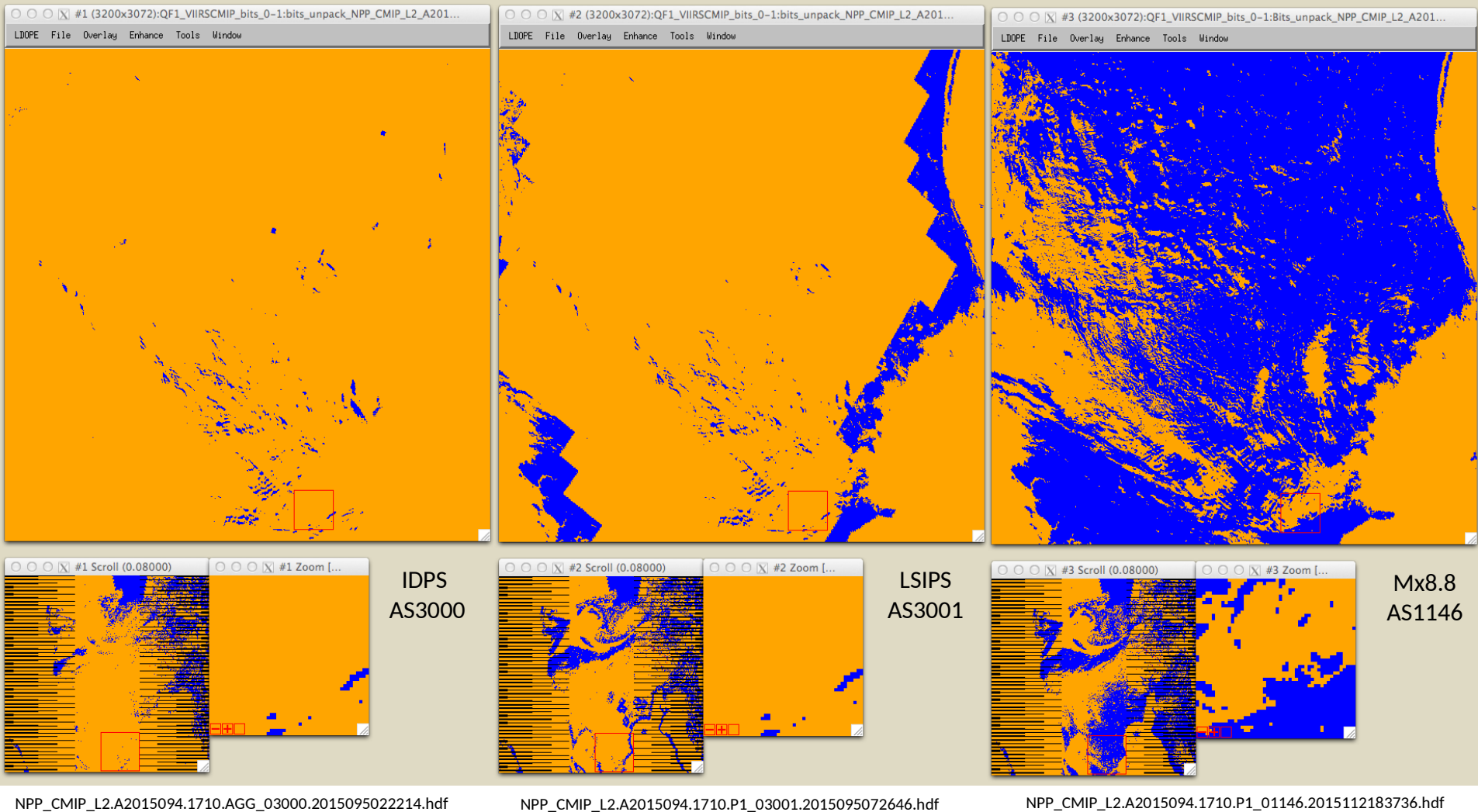


- NPP\_CMIP\_L2, day 2015094 (04/04/15), QF1, R-DIFF (IDPS AS 3000 vs MX8.8 test AS 1146)
- Large global differences were observed in the APU Cloud Mask when the MX8.8 test archive 1146 was compared with the forward processing IDPS AS 3000.



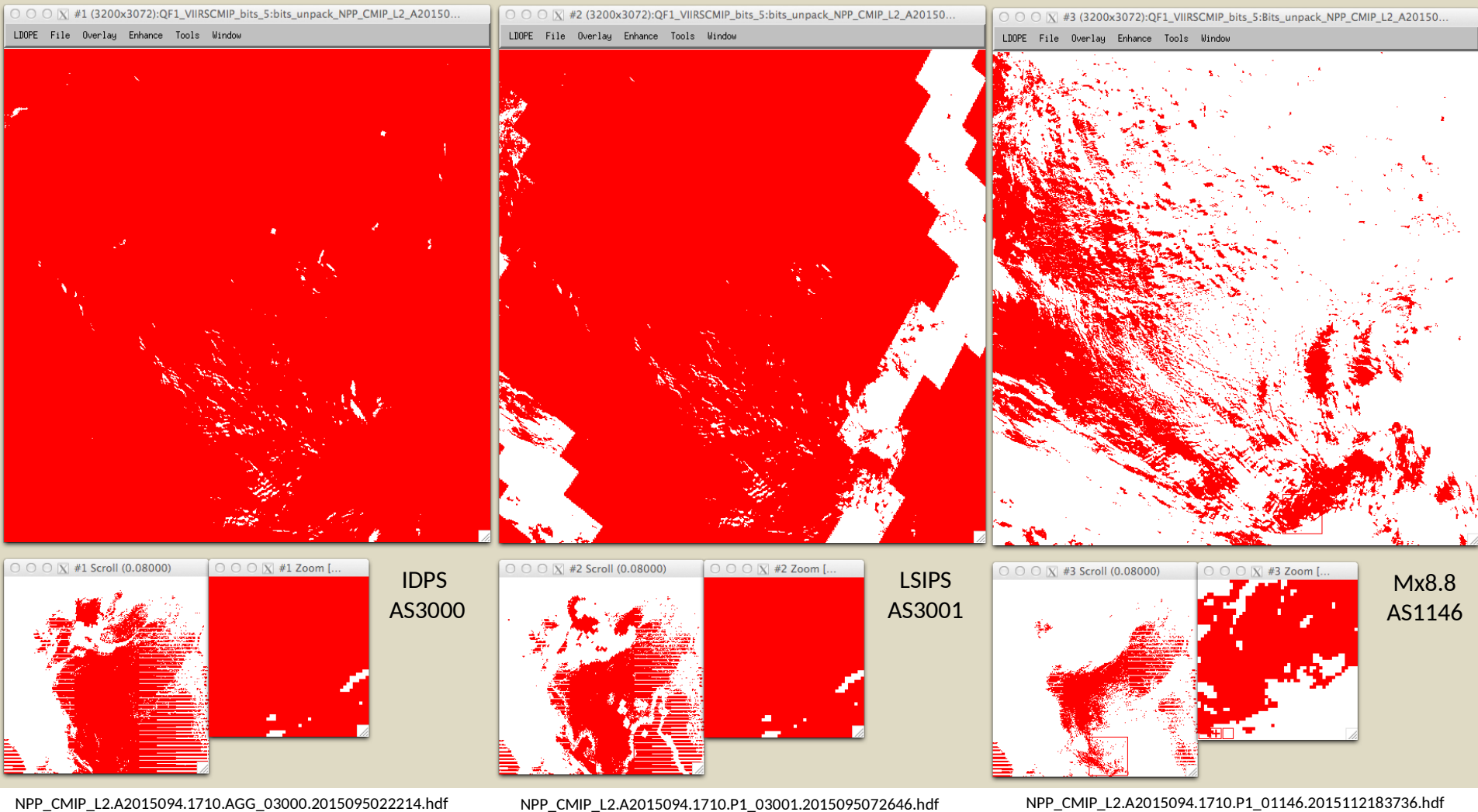
- The Cloud Detection Results & Confidence Indicator: Bit 2-3:
- Slight differences observed in comparison of AS 3000 (IDPS) and AS 3001 (LSIPS).
- Larger differences observed when Mx8.8 test AS 1146 is compared to AS3000.





- The Cloud Mask Quality Bit 0-1:
 

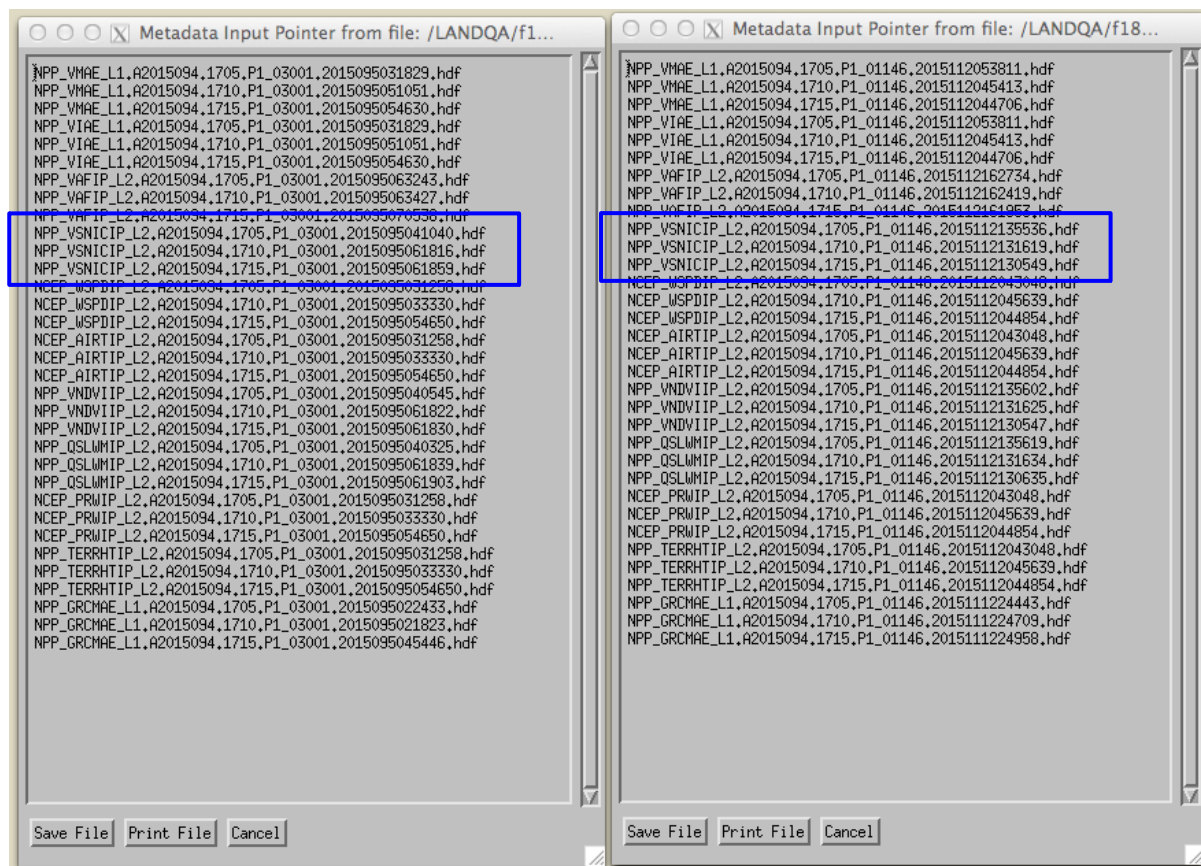
0	: Poor
1	: Low
2	: Medium
3	: High
- Test AS 1146 shows large differences in Cloud mask Quality bit when compared to both AS 3000 and 3001.



- Snow / Ice Surface flag:
  - Bit 5:
    - Red =1 (Snow / Ice)
    - White = 0 (No Snow)
- Large differences were observed in the Snow / Ice bit, with the Mx8.8 Test AS1146 reporting less snow / ice than IDPS or land SIPS.

# Review of NPP\_CMIP\_L2 Input Pointers

- NPP\_CMIP\_L2 Input Pointers
- Up stream differences were observed in the input NPP\_VSNICIP\_L2.
- The next slide reviews the differences found in NPP\_VSNICIP\_L2.



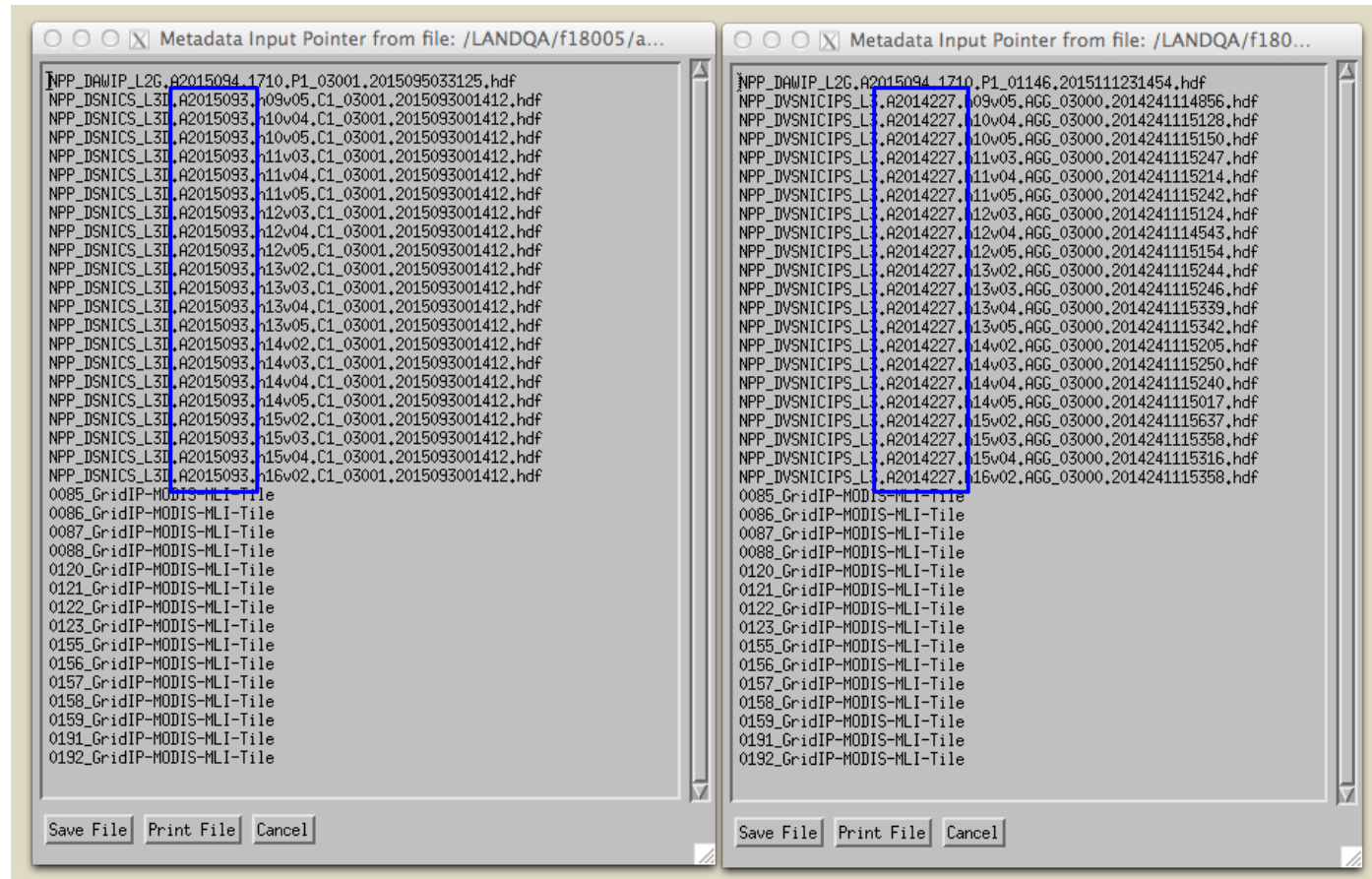
LSIPS  
AS3001

NPP\_CMIP\_L2.A2015094.1710.P1\_03001.2015095072646.hdf

Mx8.8  
AS1146

NPP\_CMIP\_L2.A2015094.1710.P1\_01146.2015112183736.hdf

## Review of NPP\_VSNICIP\_L2 Input Pointers



LSIPS  
AS3001

NPP\_VSNICIP\_L2.A2015094.1710.P1\_03001.2015095061816.hd  
f

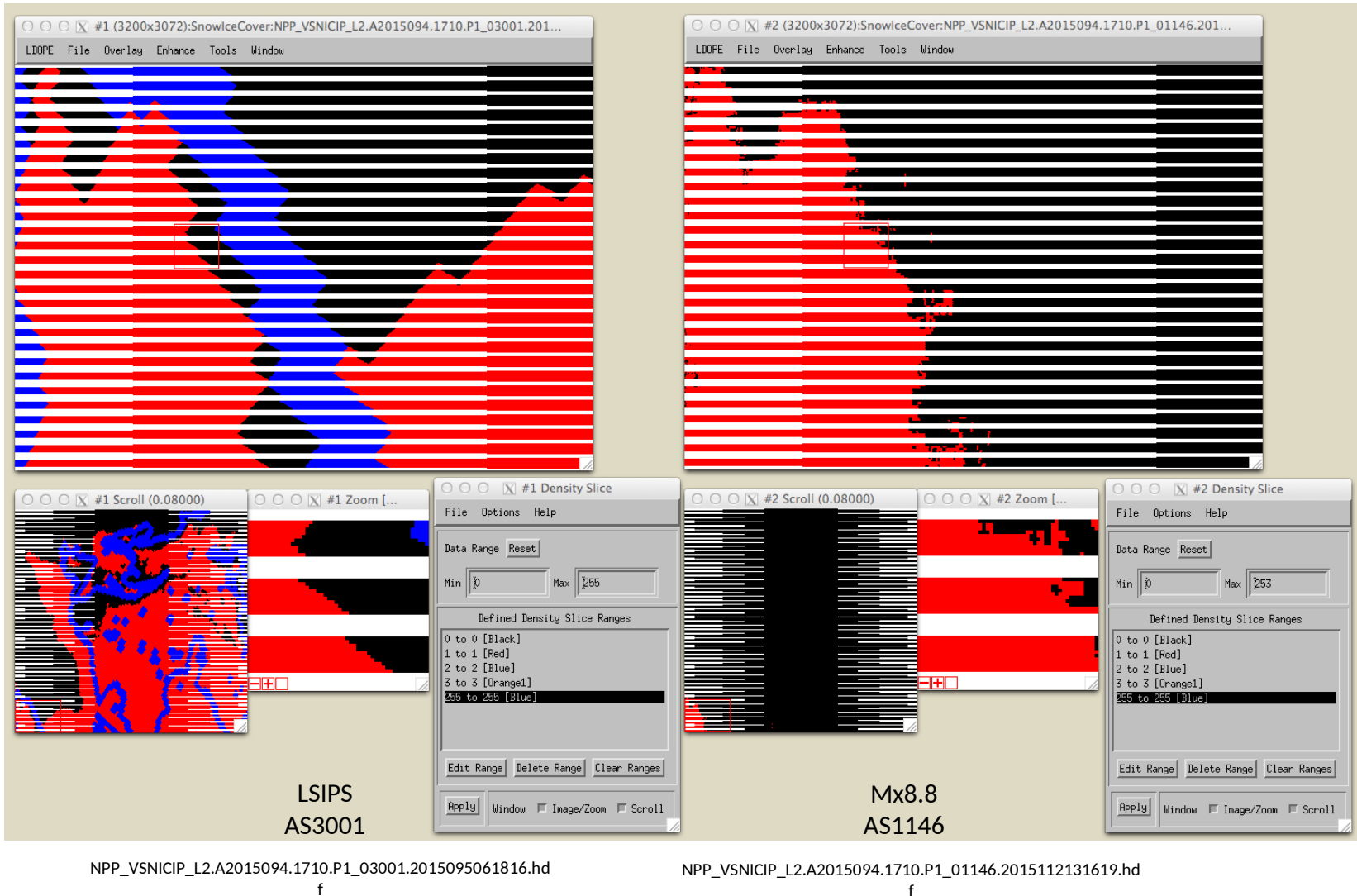
Mx8.8  
AS1146

NPP\_VSNICIP\_L2.A2015094.1710.P1\_01146.201511231619.hd  
f

- snow-ice input (granulated NISE) used by the Cloud Mask in this test (AS 1146) is from the incorrect date.
- It should have used the NISE data from day 2015093, but instead it is using the data from day 2014227.
- All the L3 snow ice is from day 2014227 - this is tiled version of the global NISE data



# Differences between the NPP\_VSNICIP\_L2 Input Pointers



- Snow-ice input (granulated NISE) used by the Cloud Mask in this test (AS 1146) shows significant differences when compared to AS3001, Snow / Ice Cover.